

Fig.1

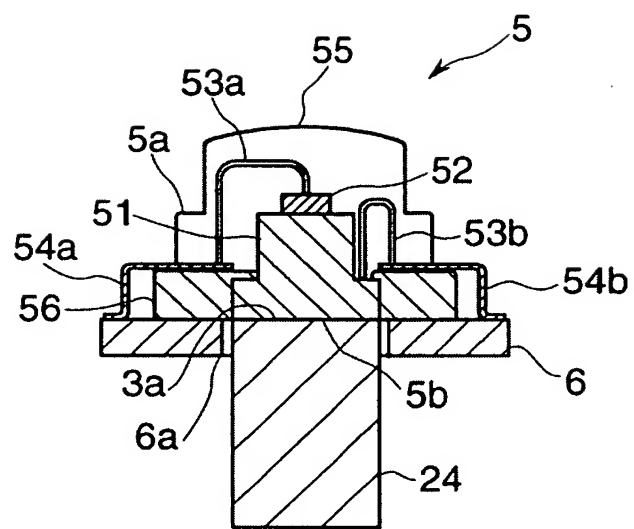


Fig.2

Temperature/Illumination Intensity Change of Light Irradiating Unit

| | conventional arrangement (with heat dissipating sheet) | this invention no heat dissipating sheet (loosely joined) | this invention no heat dissipating sheet (tightly joined) |
|--|--|---|---|
| initial temperature of soldered face (°C) | 24.2 | 25.5 | 27.2 |
| soldered face temperature 60 min later | 55.7 | 57.1 | 49.3 |
| temperature rise (°C) | 31.5 | 31.6 | 22.1 |
| initial temperature of housing (°C) | 24.3 | 25.4 | 26.8 |
| housing temperature 60 min later (°C) | 47 | 54.1 | 44.6 |
| temperature rise (°C) | 22.7 | 28.7 | 17.8 |
| initial illumination intensity (lx) | 134200 | 138000 | 138200 |
| illumination intensity 60 min later (lx) | 79200 | 97600 | 112000 |
| deterioration rate | 59% | 71% | 81% |

Fig.3

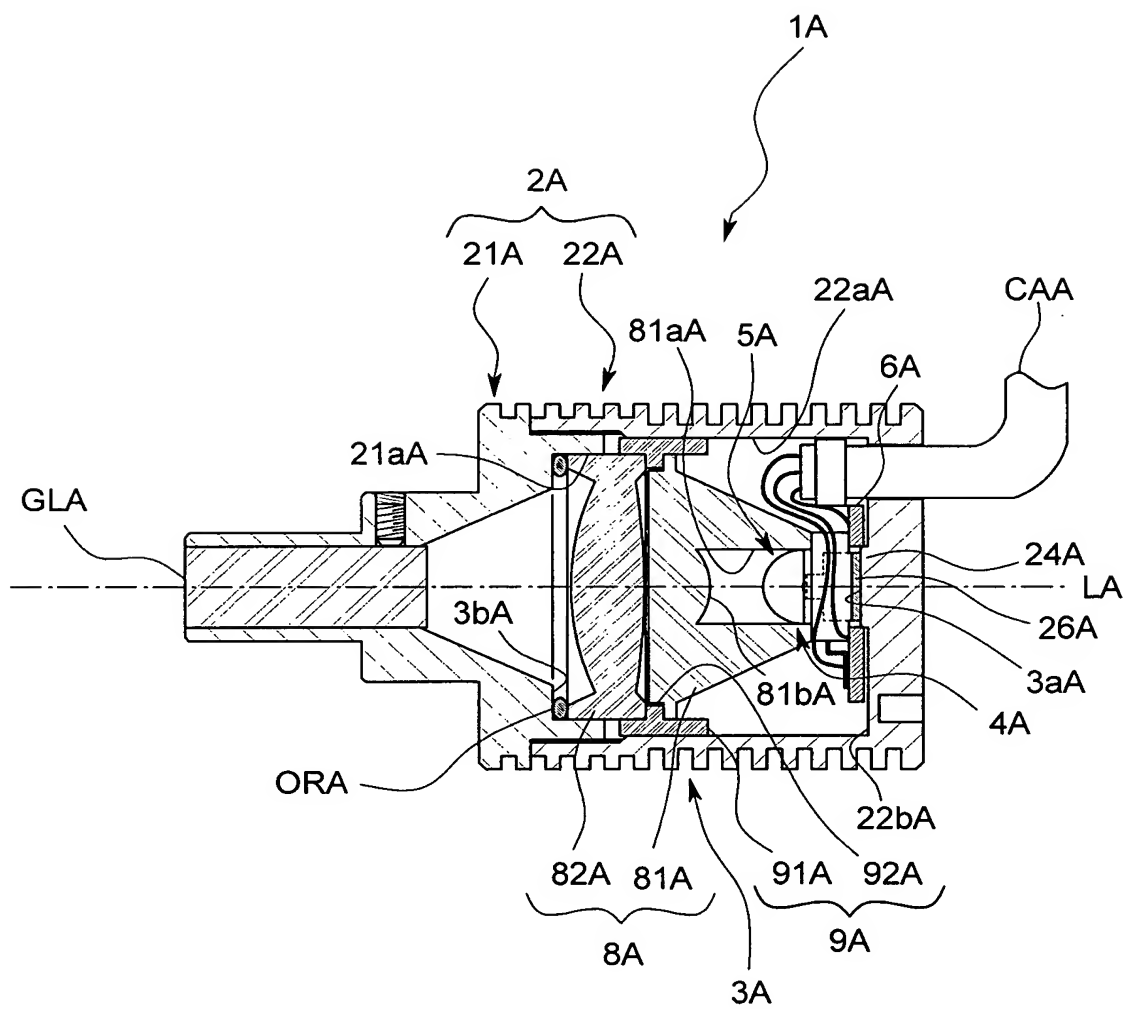


Fig.4

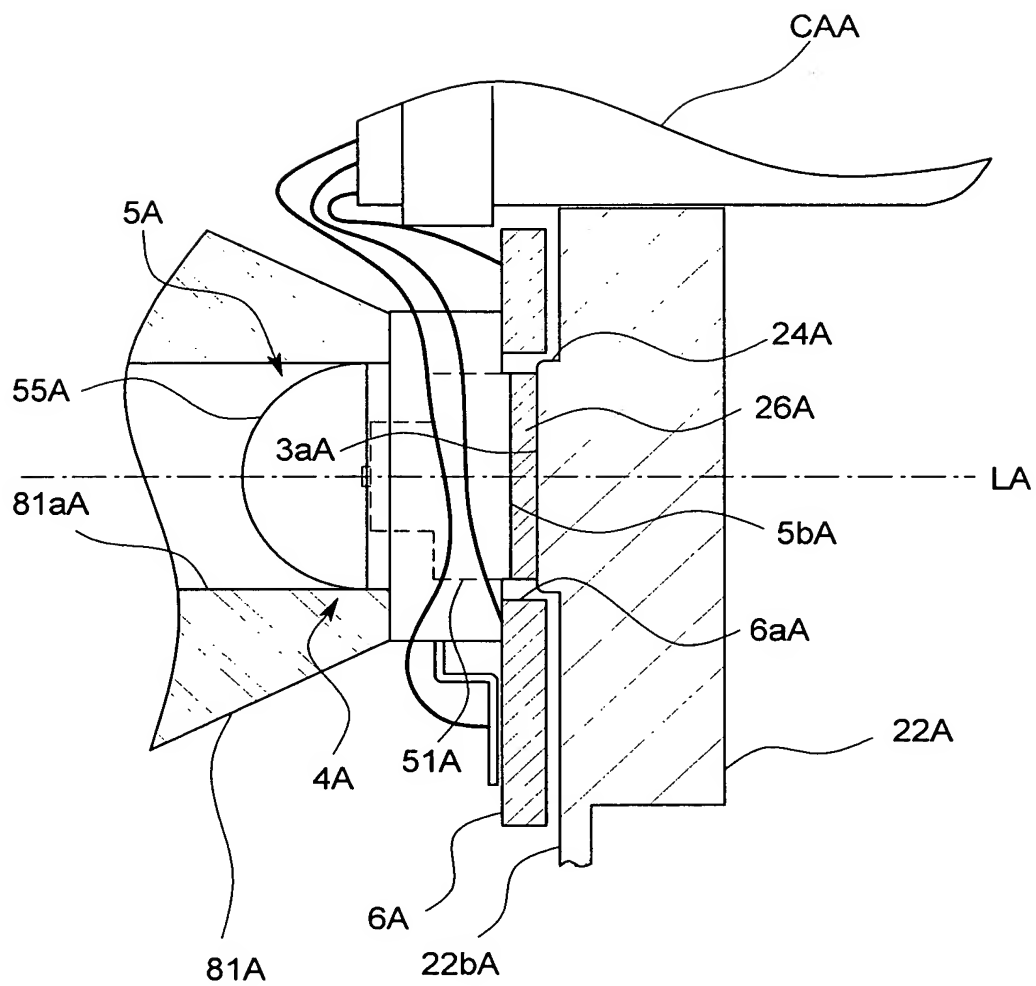


Fig.5

Temperature/Illumination Intesity Change of Light Irradiatin Unit

| | conventional arrangement (red) | this invention (red) (tihgtly joined) |
|--|--------------------------------|--|
| initial temperature of soldered face (°C) | 25 | 27 |
| soldered face temperature 60 min later | 44 | 41 |
| temperature rise (°C) | 19 | 14 |
| initial temperature of housing (°C) | 25 | 27 |
| housing temperature 60 min later (°C) | 40 | 39 |
| temperature rise (°C) | 15 | 12 |
| initial illumination intensity (lx) | 155400 | 186900 |
| illumination intensity 60 min later (lx) | 129100 | 170300 |
| deterioration rate | 83% | 91% |

Fig.6

Temperature Change of Light Irradiating Unit

| | this invention (blue) (loosely joined) | this invention (blue) (tightly joined) |
|--|---|---|
| initial temperature of soldered face (°C) | 23 | 20.9 |
| soldered face temperature | 46 | 41.4 |
| temperature rise (°C) | 23 | 20.5 |
| initial temperature of housing (°C) | 23 | 20.9 |
| housing temperature 60 min later (°C) | 40 | 36.6 |
| temperature rise (°C) | 17 | 15.7 |

Fig. 7